ABSTRACT

Problems associated with handling industrial automation control code created using graphical programming languages, principally the absence of any standard storage format or any user-readable one, are addressed by

5   providing methods and computer program products for storing industrial automation code generated using graphical programming languages in a format that permits human readability, is supported by available viewing technology (e.g., browsers), is easy and fast to parse, and that supports hierarchical information structures. The methods and computer program

10 products according to the invention involve converting a program written in a graphical programming language and stored during execution in computer memory in a non-standardized internal binary representation into a mark-up language format, for example, the extensible mark-up language ("XML"), storing, transmitting, receiving and inspecting the program stored in this

15 manner, and converting the stored program back into the graphical programming language internal representation.